

Remarks

The above-referenced application has been reviewed in light of the Examiner's Office Action dated April 2, 2004. Claims 1-3, 5, 7-9 and 11 have been amended, and new Claims 13-20 have been added. Accordingly, Claims 1-20 are currently pending in this application. No new matter has been added and no new issues have been raised. The Examiner's reconsideration of the rejections is respectfully requested, particularly in light of the above amendments and the following remarks.

Claims 1, 4, 7 and 10 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,742,343 to Haskell et al. in view of U.S. Patent No. 5,852,565 to Demos. Amended Claims 1 and 7, as well as Claims 4 and 10 which depend therefrom, are not rendered obvious by the cited combination of references for at least the reasons set forth below.

The Haskell et al. reference is generally directed towards scalable encoding and decoding of high-resolution progressive video, suitable for both lower and higher performance implementations of high-definition television ("HDTV") (see, e.g., Haskell at col. 1, lines 40-55). The HDTV lower and higher performance implementations are achieved by usage or non-usage of an enhancement-layer bitstream. Haskell et al. fail to address encoding or decoding for standard-definition television ("SDTV").

The Demos reference is generally directed towards image compression utilizing variable or multiple frame rates per embodiment, such as a low frame-rate bitstream and a high frame-rate bitstream (see, e.g., Demos at Abstract). The teachings of Demos et al. may not be readily combined with the teachings of Haskell et al. because the resulting systems would be unworkable. For example, application

of the different fixed frame-rate bitstreams of Demos to the low/high performance bitstreams of Haskell would result in a system that could not receive enhancement layer B frames following base layer I and P frames before experiencing buffer overrun.

The presently pending amended Claim 1, on the other hand, currently recites, *inter alia*:

“extracting and decoding, with an MP@ML decoder, packets having the base PID, to provide at least one of a base bitstream and an MP@ML decoded video bitstream suitable for display on standard-definition television (“SDTV”) systems;

where a base bitstream exists, extracting and decoding, with an MP@ML decoder, packets having the enhancement PID, to provide an enhancement bitstream; and

where base and enhancement bitstreams exist, combining said base and enhancement bitstreams to provide an MP@HL decoded video bitstream suitable for display on high-definition television (“HDTV”) systems.”

Similarly, the presently pending amended Claim 7 currently recites, *inter alia*:

“a decoder for extracting and decoding packets having the base PID to provide at least one of a base bitstream and an MP@ML decoded video bitstream suitable for display on standard-definition television (“SDTV”) systems, and where a base bitstream exists, extracting and decoding packets having the enhancement PID, to provide an enhancement bitstream; and

a combiner for combining the base and enhancement bitstreams to provide an MP@HL decoded video bitstream suitable for display on high-definition television (“HDTV”) systems.”

Accordingly, one of ordinary skill in the pertinent art would not be motivated to

combine the teachings of Haskell et al. with the teachings of Demos, and even if they did, they would not arrive at the presently claimed invention.

Claims 2, 3, 8 and 9 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,742,343 to Haskell et al. in view of U.S. Patent No. 5,852,565 to Demos, and further in view of U.S. Patent No. 6,337,716 to Yim. Amended Claims 2, 3, 8 and 9 are not rendered obvious by the cited combination of references for at least the reasons set forth below.

The deficiencies of the Haskell et al. and Demos references were discussed above with respect to Claims 1 and 7. The Yim reference is generally directed towards a receiver (see, e.g., Yim at Abstract), and fails to teach an encoder or a transmitter. Amended Claims 2, 3, 8 and 9 each depend from one of amended Claims 1 and 7, and necessarily include each of the elements and limitations thereof.

The Yim reference does not overcome the above-described deficiencies of the Haskell and Demos references. Accordingly, one of ordinary skill in the pertinent art would not be motivated to combine the teachings Haskell et al., Demos and Yim, and even if they did, they would not arrive at the presently claimed invention.

Claims 5 and 11 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,742,343 to Haskell et al. in view of U.S. Patent No. 5,852,565 to Demos, and further in view of U.S. Patent No. 6,125,140 to Wilkinson. Amended Claims 5 and 11 are not rendered obvious by the cited combination of references for at least the reasons set forth below.

The Haskell et al. and Demos references were discussed above with respect to Claims 1 and 7. As discussed, one of ordinary skill in the pertinent art would not be motivated to combine the teachings of Haskell et al. with the teachings of Demos.

The Examiner is correct that Haskell and Demos, even when taken together,

fail to teach “remapping the temporal references of the reference frames so that the reference frames are consecutively numbered” (Office Action at p.6, final ¶).

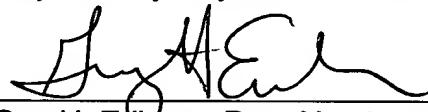
Amended Claims 5 and 11 currently recite, *inter alia*, remapping “so that the reference frames are all consecutively numbered”. Thus, the Examiner’s indication that Wilkinson shows “in the sequence I0, P3, B1, B2 …, where the new reference frames I0 and P3 are shown to be consecutively numbered in the new ordering of frames for compression” (Office Action at p.7, top ¶) is inapplicable to the amended Claims since other frames in that sequence (e.g., B1 and B2) are not reference frames, and all of the reference frames can not be consecutively numbered where non-reference frames are interposed.

Thus, the Wilkinson reference does not overcome the above-described deficiencies of the Haskell and Demos references. Accordingly, one of ordinary skill in the pertinent art would not be motivated to combine the teachings Haskell et al., Demos and Wilkinson, and even if they did, they would not arrive at the presently claimed invention.

Therefore, it is respectfully submitted that amended independent Claims 1, 5, 7 and 11 are in condition for allowance for at least the reasons stated above. Since the dependent Claims 2-4, 6, 8-10 and 12-20 each depend from one of the above claims and necessarily include each of the elements and limitations thereof, it is respectfully submitted that these claims are also in condition for allowance for at least the reasons stated, and for reciting additional patentable subject matter. All issues raised by the Examiner having been addressed, reconsideration of the rejections and an early and favorable allowance of this case are earnestly solicited.

Respectfully submitted,

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